

# Argo Information Centre Report

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ADMT #7, China, October 2006

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## 1. Background

The international Argo Information Centre (AIC) is participating in the activities of the Argo Project Office (APO) and of the JCOMM in situ Observing Platform Support centre (JCOMMOPS).

The AIC is funded on a yearly basis via voluntary contributions of United States, Canada, France, Australia and United Kingdom.

## 2. TC Activities

It has been necessary to build an Information System from scratch so the working time dedicated to developments was substantial during the first years of AIC activities (2001-2004).

The acceleration of the Argo implementation (1000 floats deployed in 2005) and the growing Argo community have naturally led the TC to limit the developments (from 50% of working time to 10%).

Hence the effort required to develop, test and deploy the final AIC website had to be spread over the 2 last years.

### Remark

During 2005, the growing number of deployments has forced the TC to constantly “run after the floats”, performing labour-intensive tasks on a daily basis. After discussions with the Argo exec., it has been decided to update the float database (adding new floats) on a weekly basis. Total float number is frozen between the updates.

In 2006, the management of the float database has been gradually rationalized through the use of weekly procedures, reports, and web administration applications.

The Argo TC has today appropriate tools to check the status of an active fleet of 2500 units with about 80 new deployments per month.

Time spent on this task is reasonable; on average, 1 day per week and another day each month are necessary to keep the float database up to date, taking into account available tools.

The following are given practical examples of regular tasks performed by the TC (non exhaustive).

### Routine Tasks:

#### **Daily**

- Check the information system is working and fix any problems occurring
- Answer (email) support requests concerning any aspect of the Argo project
- Check “meta database” content and integrity
- Check log files and daily batches worked without error
- Recall to notify new float deployments if needed
- Notify deployments if needed (for new programmes)
- Team work with TC DBCP
- Supervise students being trained at JCOMMOPS (if any)

#### **Weekly**

- Maintain up to date Argo Status (add new floats, check float parameters, check potential revivals, inactive floats, etc) => write report (\*)
- Check log files and weekly batches worked without error
- Track floats with no data distribution (GTS & GDACs) => write report (\*)
- Take steps to set up data distribution for DAC-less programmes.

- Add pertinent news on the website (Argo websites updates, deployment opportunity, float retrieval stories , new contributions, etc)

### Monthly

- Prepare Argo status maps => write report to [argo@jcommops.org](mailto:argo@jcommops.org)(\*)
- Clean float trajectories and archives
- Check log files and monthly batches worked fine
- Analyse monthly reports, graphs and maps produced, to look for discrepancies. Alert community and/or suggest solutions if needed
- Administrative tasks (regarding IOC, JCOMMOPS)

### Yearly

- Coordinate donor programmes (including shipping, technical assistance)
- Coordinate retrieval procedures
- Think of new ideas and recommendations that could be made to the AST/ADMT to improve overall coordination and effectiveness
- Review website content.
- Reports to AST, ADMT and DBCP on AIC activities
- Beached/Retrieved floats status => write report for AST(\*)
- Argo implementation => write report(\*)
- Think of and prepare new training subject(s) for potential students at JCOMMOPS
- JCOMMOPS annual budget (IOC, WMO, CLS). Plan future expenditures with DBCP TC.

### Biennial

- Review websites to ensure that they are well targeted and provide the best demonstration of the value of the Argo project
- Think of new monitoring and metadata tools

(\*) In the past, such reports have been provided sporadically until today. The AIC will continue to rationalize and automate (at least some parts) these reports for a routine production.

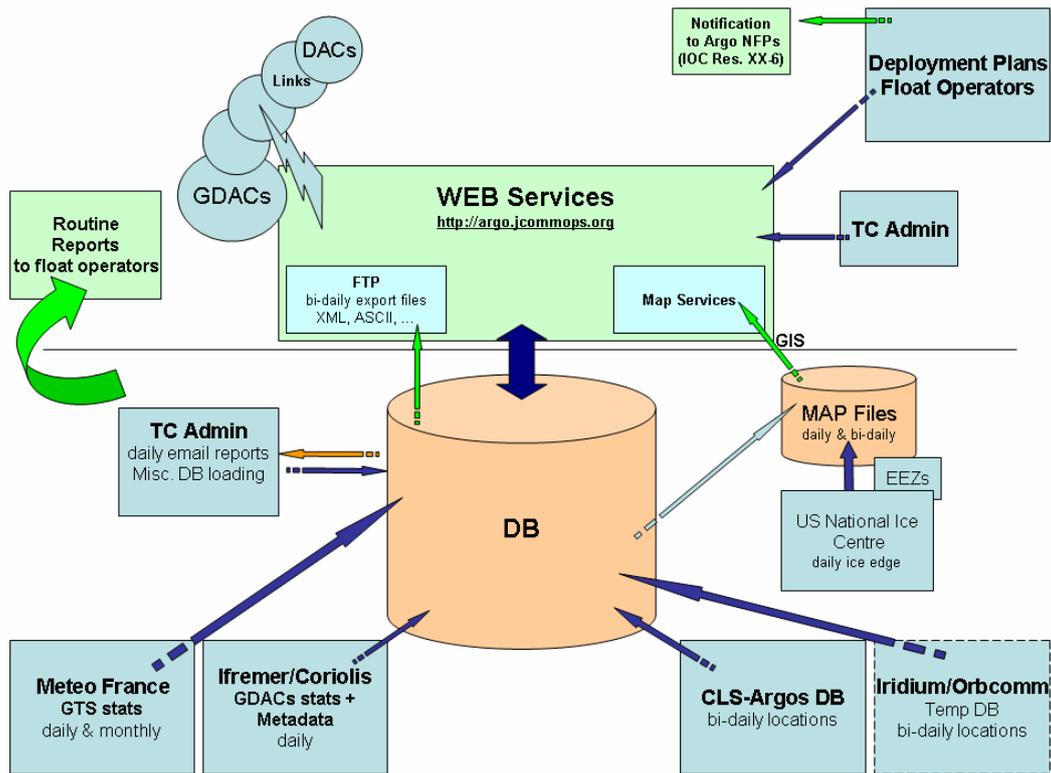
### Ad hoc tasks

- Provide material (statistics, maps, charts, presentations) on demand
- Update database/website (contacts, meetings, etc)
- Develop/finalize web applications
- Develop/finalize scripts (to check database or produce status files)
- Add new metadata to the system (sensors, deployment method, beached floats)
- Maintain/Install hardware/software (Administration of 3 servers)
- Investigate new floats/programmes to include them in Argo
- Represent the "Argo customer", within CLS, if problems occur (to speed up solutions )
- Assist CLS to solve GTS issues
- Prepare presentations on Argo , JCOMMOPS, etc
- Write general abstracts on Argo (e.g. press releases)
- Write letters in collaboration with IOC/WMO to build donor programmes (customs, foreign affairs) and invite new countries to join the Argo project
- Mailing Lists maintenance (8 Argo lists + GEO: [ocean-united@jcommops.org](mailto:ocean-united@jcommops.org))
- Prepare missions/visits

### 3. AIC Information System

#### a. Background

The AIC website is the tip of the AIC Information System iceberg and is used routinely by the TC to achieve various international coordination tasks which require accurate and up to date information management. The system routinely assimilates information from heterogeneous sources, then checked and re-distributed in various ways (see information flow diagram below).



**AIC Information flow diagram**

#### b. Audience

The AIC services are primarily dedicated to the Argo community and not to the public. The following chart shows a constant growth in the website usage since the AIC establishment in 2001.

In November 2005 we observed an average of 11000 sessions per month. This level of user visits has been maintained during 2005-2006.

The audience is truly international (180 countries logged) and main users are from USA (60%), France, Japan, UK, Canada, Germany, China, Korea, Australia, Spain, Netherlands and India (in order of usage level).

This growth in usage is seen as a positive result of the Argo project and AIC as it demonstrates that the AIC is used by a larger audience than planned and additionally demonstrates the excellent visibility of the Argo project.



### **AIC audience 2001-2005**

(The definition of a user visit is always an approximation; here it is a sequence of page requests with the same IP address, and with a maximal interval between page requests of 30 min).

Since April 2005 a survey has been conducted to obtain feedback from the Argo data user community. The results will be published during the next Argo Data Management team meeting.

To the question “*How well are you satisfied of the AIC services?*” 83% of respondents replied from Good to Excellent, 15% average and 1 % bad.

To the question “*What improvements would you recommend?*” some interesting proposals were:

- improve website speed and stability (ongoing)
- provide hard copies of content to developing countries (ongoing on Argo CDROM)
- add a real-time density coverage layer to the interactive map (JCOMMOPS issue)
- Add a web form to ask for WMO Ids (to be discussed with WMO)

These proposals will be considered for future plans of the AIC.

This survey was made before the release of the new site; it is likely to have a better audience and feedback in the future.

### **c. New AIC website**

The year 2006 marks an important milestone in the AIC development as a new website has been released following 2 years of effort to deploy the system on new hardware and software architectures.

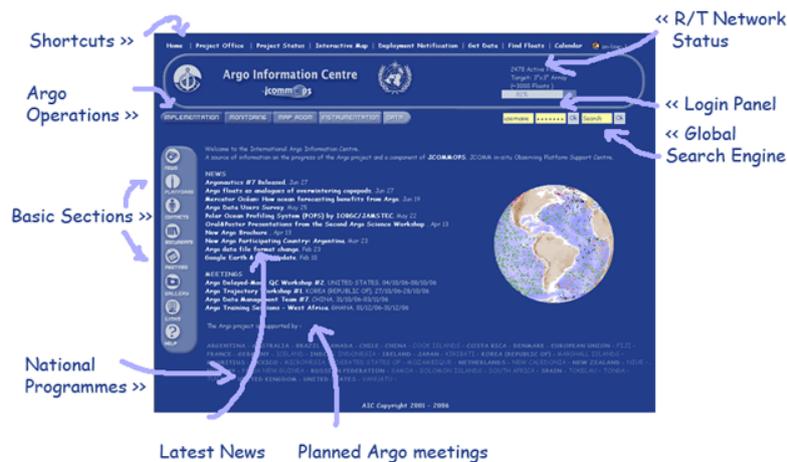
The new website was officially released late September. As is expected with any major website upgrade, it will need an additional effort of optimization before reaching a truly stable state.

The dynamic web application previously deployed on a low specification WinNT server has been migrated to a more powerful UNIX/MacOSX server and upgraded with many new components.

The JCOMMOPS graphical design (produced by the AIC previously) has finally been applied to the new site.

The website includes, in particular, a new deployment notification interface (gathering more metadata), an improved float search engine, an improved float details page linked to many national DAC products, more statistics on project development, new statistics on national/regional contributions, new statistics on floats lifetime, and a photos/pictures gallery.

## d. New Products



**New AIC website**  
<http://argo.icommops.org>

Most of the features in the previous website have been improved and many details have been fixed.

Some of the new features of the website are:

**Dynamic Web** (See Annex or key links and sample charts)

Remark: The rotating Argo globe (produced by IOS/Canada) has been removed from the home page for performance reasons (too heavy animated gif).

### **1) Argo OPERATIONS**

#### **Home**

- New Homepage (visibility to all participating countries and access to national statistics)

#### **Implementation**

- New static page on "What is Argo"
- New page on participating countries including a chronology, a yearly deployment table and a bar chart on active floats and their data distribution.
- New deployment notification interface (more metadata gathered, list of deployment plans per basin, text sent to Argo focal points reviewed)
- New section on retrieval of beached floats (list of beached floats, retrieved floats, safety guide)

#### **Monitoring**

- New statistics on project status
- New statistics on national, "sub-national" contributions (network growth, age distribution, float decay, float models, yearly deployments, link to interactive map)
- New float search engine

#### **Map Room**

- Nothing really new except a page on Google Earth files

#### **Instrumentation**

- Float decay chart available for all floats and each float model

#### **Data**

- Statistics on data flow (Internet, GTS) tuned
- Support section – to be discussed with ADMT

## **2) COMMON (JCOMMOPS) SECTIONS**

### **Platforms**

- New Float search engine: many more criteria to build the query regarding platform status, deployment, equipments, latest location, data distribution, cycle, lifetime.
- Many more fields can be displayed (or hidden) on the query result page
- Access to a statistics page for the float group defined (age distribution, drifting/profiling pressure, decay charts)
- Platform Inspect page completed (more metadata, links to DACs products, link to interactive map, Argo netCDF metadata explorer developed)

### **Documents**

- Links to documents checked and updated, Argo papers and press releases added

### **Gallery**

- Photos gallery added and gradually enriched.

### **Help**

- Site Map added

## **Maps**

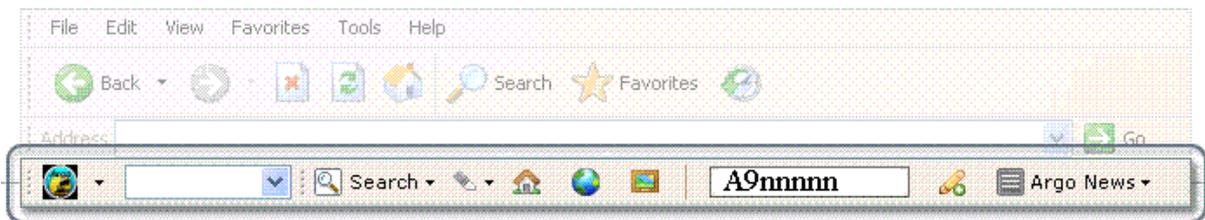
- A daily ice edge layer (partnership with US National Ice Centre) has been added to the interactive map and is also used in monthly maps production.
- Google earth files are now produced bi-daily (active & inactive floats, trajectories)
- Monthly map generation has been automated (near fully) and maps are produced in PNG for the web pages and in PDF for high resolution requirements.
- The AIC produces on-demand Argo maps as well.

## **The AIC Toolbar**

This gadget is unfortunately restricted to Internet Explorer (5.0+) and Firefox (1.01+) users.

Amongst other things it permits the user to (see picture below) :

- search from anywhere on the web with Google search engine
- search the AIC database (platforms, contacts, news, documents, glossary)
- gain instant access to key links (Argo project Office, Interactive Map, Notification, Latest status map).
- gain access to latest Argo news
- gain instant access to an Argo float by its WMO Id



This toolbar will be gradually enriched with Argonauts' proposals.  
It has been installed by 25 Argonauts.

#### **e. Operations**

The latest web configuration is designed to automatically re-launch a service that has failed. However this does not cover all cases of failures, so another procedure is required to approach the 24/7 services, though for AIC, 24/7 support is not as important as it is for organizations such as data distribution centres.

In this regard, the AIC benefits from the CLS logistical support which monitors many operations.

Hence, the main services provided on-line, particularly the website and mapping system, are now monitored 24/7 by CLS operators.

If services are down, then operators see a warning message on their control screens and can apply the procedure to launch them again.

This new procedure will be tested and refined in the following months and AIC services should be fully operational by early 2007.

### **4. Data Management**

The AIC participates in the Argo Data Management Team activities, encouraging standardization, regional collaboration, promoting data flow, and providing specific tools to facilitate data management set up and to monitor the Argo Data System.

#### **Assistance for data distribution**

Some national Argo programmes have not yet developed such capabilities, or have no dedicated funding for data management (focusing e.g. on implementation aspects).

In that case, the AIC coordinates the data management set up with voluntary centres ready to take upon the float processing. In practice, such assistance is offered by CLS for the GTS distribution and Coriolis for the GDACs distribution.

#### **National Data Centres**

National contact points, report on-line on the different steps achieved concerning real-time or delayed-mode data management.

National Argo websites proposing products on individual floats are now linked with the AIC website (see Annex).

#### **Daily monitoring of data distribution**

Data distribution on Internet (GDACS) and on the GTS is still monitored on a daily basis and is compared to the floats officially notified at the AIC.

Some scripts are running daily to retrieve information from Meteo-France (GTS) and Coriolis (GDAC) and then merge it with the AIC float data.

Float operators in charge of data management set up are encouraged to use such lists to detect potential omissions and check if data are effectively published through the appropriate channels.

The status of data distribution is routinely sent to the ADMT through reports and summarized on the website.

A new table has been added on-line regarding the "DAC-less" floats (directory "/gts" at GDACs).

## **Metadata**

The AIC database deals now with more metadata and particularly with the float cycle information impacting lifetime statistics.

A netCDF Argo metadata explorer has been plugged into the "Platform Detail" page and metadata file content can be loaded in the database to augment the information provided by float operators during the deployments notification procedure.

## **Support**

A proposal to build a complete Support Centre at the AIC will be discussed during the next ADMT meeting.

The idea would be to archive and reply as appropriate to the queries on Argo and particularly on Argo data use.

It is to be noted that this is a task manually done by the TC on a daily basis (or by data centres). So this initiative will permit to integrate, automate, rationalize and archive existing mechanisms.

For now the generic email address [support@argo.net](mailto:support@argo.net) has been set up and points to the TC mailbox.

A complete (and dynamic) web section will be developed on the new AIC website.

The on-line support centre would:

- recall sources of information and documentation available
- propose a browser for archived question/answers
- propose a simple web form to enter the query (including a field for a WMO Id, and a pop up menu to select issues)

It is needed to list the different issues (e.g.: general, instrumentation, web access, real time or delayed mode data use, data formats, QC procedures, GTS issues, problem on an individual float or profile, education) and find some voluntary experts to reply related queries.

The system would record the information in the database and route the query to the TC and other appropriate experts.

If a WMO Id is given, the float operators owning the platform (PI) would be automatically cc.

If no issue is selected or message directly sent to [support@argo.net](mailto:support@argo.net), then the TC would answer directly or manually forward the query to experts as appropriate.

Developments required to build this support centre will be minimal as most of the elements required are already implemented in the AIC database and web services.

## **Survey**

A data user's survey was set up in April at:

<http://www.surveymonkey.com/s.asp?u=460472024285>

Results will permit to better know our user's community and will be published at the next ADMT meeting. (See dedicated document).

## 5. International Issues

### New participants

The AIC encourages and coordinates multilateral collaborations through “float donations” in order to build capacity for new participating countries.

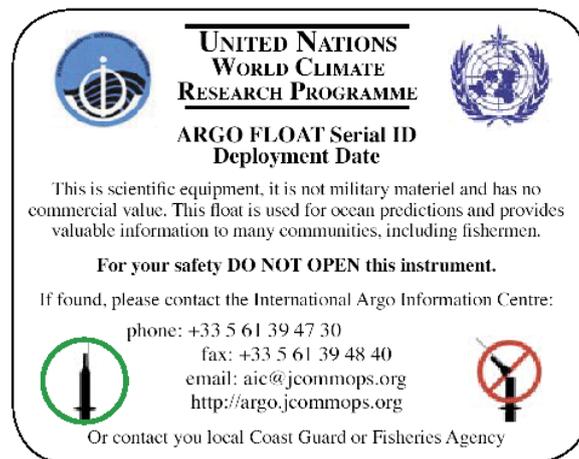
This year 3 more donor programmes have been initiated:

- Dominican Republic (2 floats)
- Ecuador (2 floats)
- Kenya (5 floats)

The AIC (with IOC & WMO assistance) will investigate the possibility of increasing the number of countries supporting Argo in the Caribbean region.

### Retrieval of beached floats

The AIC is likely to be the first contact point in identifying grounded floats and assist, as appropriate, in coordinating communications between all parties in the retrieval procedure.



A new Argo label has been produced by Scripps. It is lighter (so that it will not affect float ballasting if the sticker is lost during its mission) and distributed to float manufacturers.

A dedicated section of the new website provides the list of beached/grounded floats, a safety and the list of retrieved floats. Progresses are tracked through distribution of weekly reports. It is to be noted that a float which beached in Somalia could not be shipped back to its owner because of the instability of the country, despite hundreds of phone calls and emails, to coordinate its return.



## Les scientifiques recherchent des flotteurs perdus en mer

**Les scientifiques de l'Institut de recherche pour le développement (IRD) engagent des océanographes d'engorgement largés à la dérive.**

En 2004, vingt flotteurs de l'IRD avaient été mis à l'eau et ils ont dérivé dans l'océan. Chacun d'entre eux sont toujours actifs à ce jour (ils sont censés pour avoir une vie moyenne de quatre ans dans l'eau de mer). D'autres scientifiques que ceux de Nouméa ont conduit des opérations identiques à travers le monde, ce qui a été traduit par la mise en service de 2 532 flotteurs actifs.

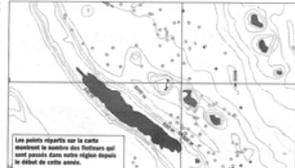
Or, il semblerait que plusieurs d'entre eux se sont perdus dans la région proche de l'archipel calédonien, au cours des derniers mois. Les chercheurs font donc appel à la population, plus particulièrement celle des îles Lifou, Uvea ou Maré, qui en trouvent échoués ou au fond de l'eau, sur le littoral.

**Informations précieuses**

« Il est fort probable que des données précieuses au nord océaniques, explique Christophe Mété, du IRD Nouméa. Mais si, par une chance inattendue, certains venaient à s'échouer sur une plage, il serait très intéressant pour les scientifiques de les récupérer, non pas pour les réutiliser, ni pour leur valeur marchande qui est nulle, mais un savoir de savoirs et géographiquement, de l'écologie du bassin maritime à l'échelle de la Terre.

Coriolis est le nom du centre de traitement des données des flotteurs dérivés par le France, l'Allemagne, le Danemark et le Royaume-Uni dans plusieurs projets nationaux et européens. En collaboration avec le Marine Environment Data Service canadien, il collecte et qualifie toutes les données de température et de salinité distribuées sur le réseau mondial de la météorologie (SST). Depuis janvier 2003, il alimente chaque semaine le modèle océanographique d'engorgement dérivé.

Toutes les données du centre de traitement sont disponibles sous 24 heures sur le site internet du centre Coriolis: <http://www.coriolis.eu.org>.



The 4 latest surface locations (Google Earth) for a float lost in Lifou island lagoon (New Caledonia) & the call for a lost float in the local newspaper.

Retrieval procedure is usually a long and time consuming process but is a good opportunity to strengthen the regional support to the Argo project.

### Capacity Building

A workshop is scheduled for December 2006 in Ghana to address issues relating to regional capacity building on Argo data access and. The Argo TC will attend it and give talks on Argo International issues and Argo websites use. In addition, Webb Research (a float manufacturer) has agreed to donate a float for this event.

## 6. Communication

In 2006 TC participated in the following events and initiatives that contribute to the promotion of the project:

- UNESCO 60<sup>th</sup> Birthday: talk on ocean Obs. Systems and Argo (along with P.Bernal/Tsunami issues and E. Desa/Capacity Building)
- Argo Article in Mercator Newsletter
- Argo Article in Thalassa (French magazine)
- Argo float shown on French national TV news
- Ongoing: educational initiative being prepared with CNES (Argonautica)

## 7. Planning

Planning for 2006-2007 can be summarized as follow:

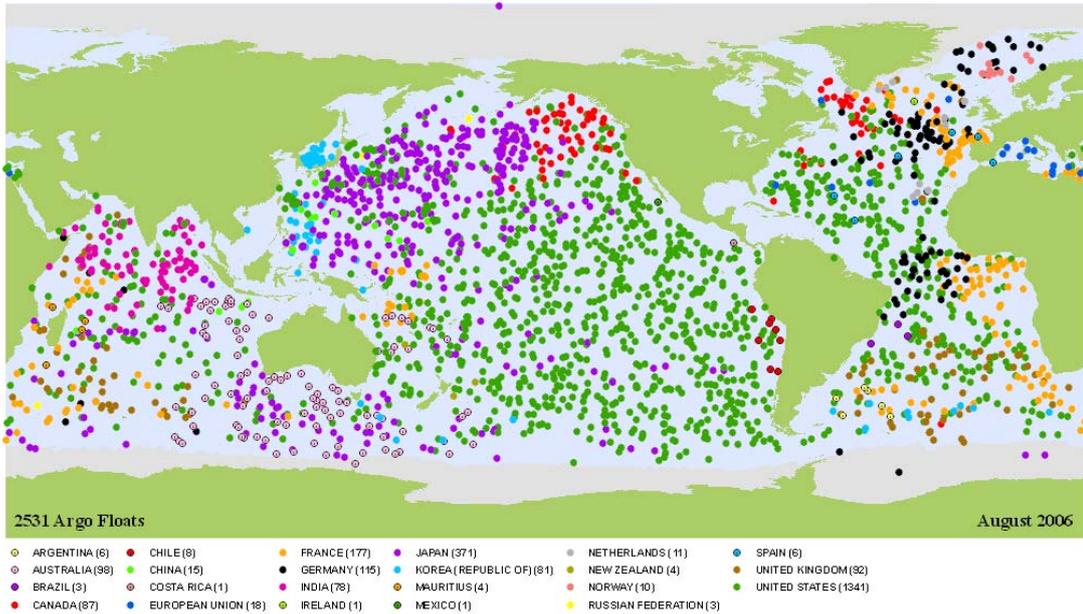
- Continue to address any issue with the new website  
Highlight the Argo project's good health on the website (participate in the value demonstration of Argo)
- Rationalize the update of float database (almost achieved)
- Develop tools to assist deployment planning (produce map files of deployment plans and future array status (+ 1 year, etc))
- Develop the Support Centre section
- Produce a real-time density coverage layer for interactive map
- Improve Argo Portal [www.argo.net](http://www.argo.net) (to be discussed within the Argo Project Office)
- Rationalize the reporting  
Weekly reports to AST, ADMT (on Argo status)  
Monthly status report to all Argonauts  
Yearly report on Argo implementation
- Finalize the float retrieval procedure
- Finalize the donor programme and foster participation by new countries
- Establish new contacts, e.g. POGO research cruise database to provide better information on deployment opportunities
- Improve (modestly) Argo media coverage via direct contacts or educational initiatives



(The new Argo Logo designed by IOS/Canada)

## Appendix

- Examples of new (and improved) products available @ <http://argo.jcommops.org>



### New monthly map design

(View shifted ten degrees east to give more visibility to Med. Sea - legend production automated)

Float Funding (24)		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Funded Total
	ARGENTINA	0	0	0	0	0	0	0	0	0	6	6
	AUSTRALIA	0	0	4	6	0	12	8	5	62	23	120
	BRAZIL	0	0	0	0	0	0	0	0	3	0	3
	CANADA	2	0	1	0	30	38	31	30	28	31	191
	CHILE	0	0	0	0	0	0	0	0	4	4	8
	CHINA	0	0	0	0	0	5	16	8	0	6	35
	COSTA RICA	0	0	0	0	0	0	0	0	2	0	2
	DENMARK	0	0	0	0	5	0	0	0	0	0	5
	EUROPEAN UNION	0	0	0	1	10	70	4	17	7	1	110
	FRANCE	0	0	6	11	12	7	34	85	89	43	287
	GERMANY	0	3	3	22	21	14	26	45	74	26	234
	INDIA	0	0	0	0	0	11	23	30	45	11	120
	IRELAND	0	0	0	0	0	0	2	0	0	0	2
	JAPAN	1	12	12	6	40	76	129	118	109	82	585
	KOREA (REPUBLIC OF)	0	0	0	0	16	25	32	32	35	13	153
	MAURITIUS	0	0	0	0	0	0	1	2	0	2	6
	MEXICO	0	0	0	0	0	0	0	0	2	0	2
	NETHERLANDS	0	0	0	0	0	0	0	3	4	4	11
	NEW ZEALAND	0	0	0	0	2	2	0	2	1	3	10
	NORWAY	0	0	0	0	0	3	6	0	0	2	11
	RUSSIAN FEDERATION	0	0	1	0	0	2	0	2	0	0	6
	SPAIN	0	0	0	0	0	0	7	2	1	1	11
	UNITED KINGDOM	0	0	0	0	30	37	37	45	29	22	200
	UNITED STATES	22	10	36	70	129	150	314	443	506	367	2047

**Official deployments table, by country**

UNITED STATES

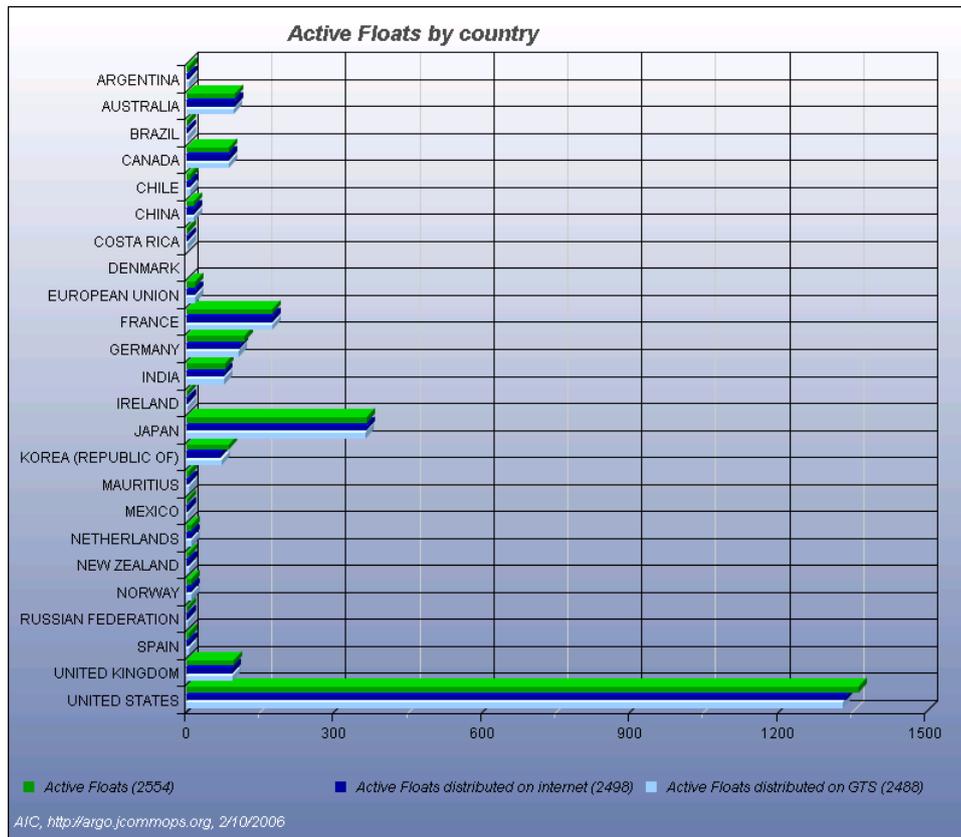
Click on a program for more details.



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Total	Fleet status		
Argo eq. AOML	14	0	0	13	2	0	0	0	0	0	29	5	100%	100%
Argo eq. NAVOCEANO	0	0	0	19	7	22	18	20	9	17	112	33	100%	100%
Argo eq. PMEL	0	0	0	0	10	12	0	0	0	0	22	1	100%	100%
Argo WHOI	0	0	0	0	26	34	97	93	132	109	491	341	98%	99%
Argo SIO	0	0	0	15	77	10	90	126	141	123	582	357	97%	98%
Argo UW	0	1	0	23	4	71	103	119	108	59	488	385	96%	96%
Argo eq. NDBC	0	0	0	0	3	1	0	0	0	0	4	0	0%	0%
Argo eq. UW	8	9	36	0	0	0	0	0	0	0	53	0	0%	0%
Argo PMEL	0	0	0	0	0	0	1	59	86	57	203	189	100%	100%
Argo eq. WHOI	0	0	0	0	0	0	4	0	0	0	4	0	0%	0%
Argo eq. FSU	0	0	0	0	0	0	0	7	0	0	7	6	100%	100%
Argo eq. UH	0	0	0	0	0	0	1	19	28	0	48	42	100%	100%
Argo eq. UW-UA	0	0	0	0	0	0	0	0	2	2	4	3	100%	100%
<b>Total</b>	<b>22</b>	<b>10</b>	<b>36</b>	<b>70</b>	<b>129</b>	<b>150</b>	<b>314</b>	<b>443</b>	<b>506</b>	<b>367</b>	<b>2047</b>	<b>1362</b>		

Legend ...

**Details for a specified country**



**Active floats and data distribution status**

(Chart also available for, programs, basins, and float models)

	Active floats set up for GTS distribution	<b>2484</b>
	Active floats set up for Internet distribution	<b>2548</b>
	Active Floats "Grey Listed"	<b>63</b>

Click on a link below to display lists :

- >>> **Active floats waiting for GTS publication**
- >>> **Active floats waiting for GDAC publication**
- >>> **Grey listed active floats**
- >>> **DAC-less floats**

Other Global Argo Data Management Statistics

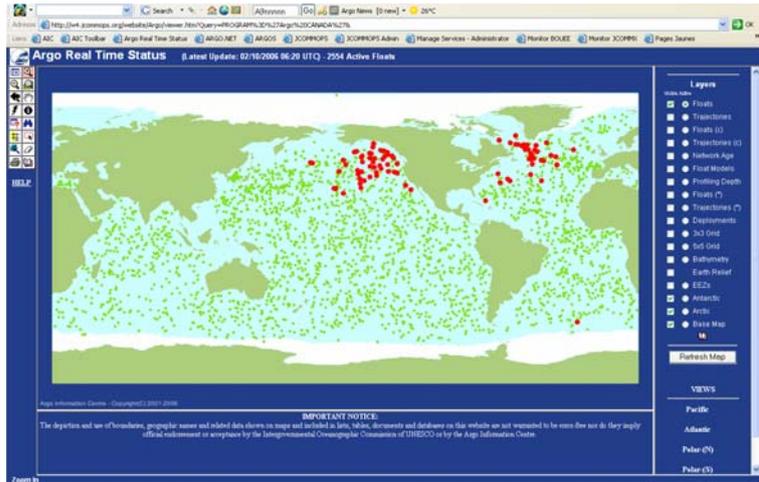
**MEDS (Canada)**  
**Coriolis GDAC**

54 Active floats are waiting for GTS publication:						
WMO Id	Program	Telecom Id	Model	Age (days)	DAC	
5900853	Argo AUSTRALIA	41558	APEX	541	CSIRO	 
6900326	Argo BSH	30710	NEMO	12	Coriolis	
6900327	Argo BSH	30712	NEMO	0	Coriolis	
1900518	Argo IFM-GEOMAR	54128	NEMO	490	Coriolis	
1900517	Argo IFM-GEOMAR	54127	NEMO	490	Coriolis	
2900763	Argo INDIA	23582	APEX	2	CLS	
4900898	Argo JAPAN	60144	APEX	80	JMA	
2900670	Argo JAPAN	66067	APEX	30	JMA	
2900668	Argo JAPAN	60113	APEX	31	JMA	
2900454	Argo KORDI	4670	Provor	27	Coriolis	
2900789	Argo KORDI	25957	APEX	27	CLS	
2900792	Argo KORDI	25984	APEX	29	CLS	
2900609	Argo KORDI	23219	APEX	320	CLS	
3900322	Argo KORDI	50786	APEX	640	CLS	

...

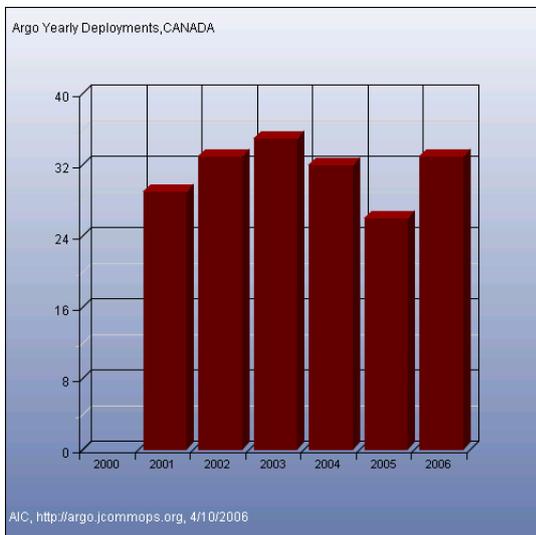
### Data distribution status

Data distribution is monitored on a daily basis, float per float, on the two channels of distribution.

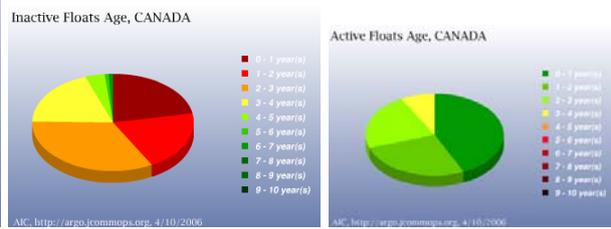
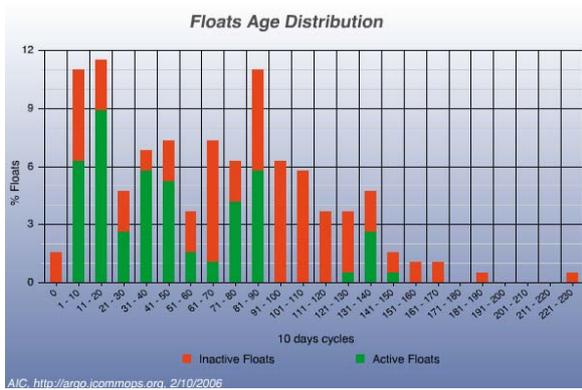


**Canadian active fleet,**

(Every country or program can gain direct access to its fleet on the map)

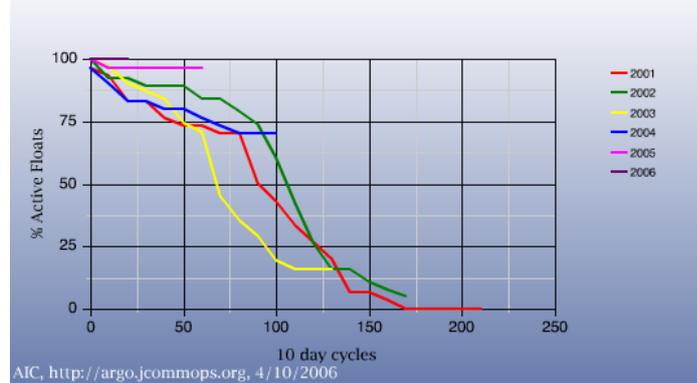


(a,b)

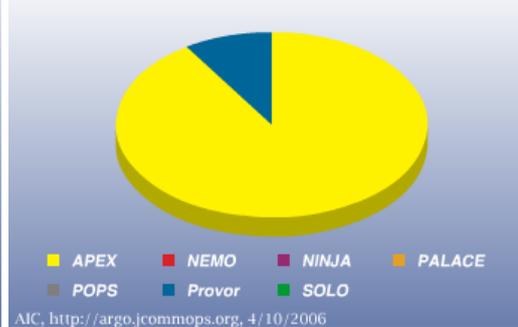


(c,d,e)

Decay Rate, Argo, CANADA

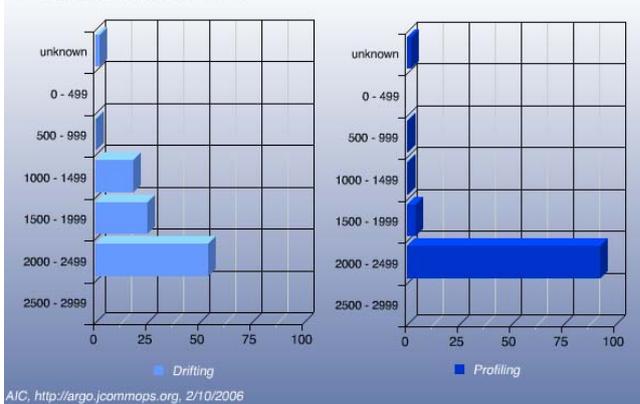


Active Floats Model, CANADA

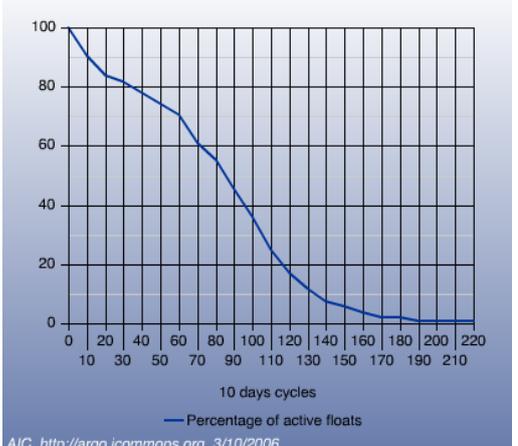


(f,g)

Drifting and Profiling Pressure (%)



Float Decay



(h,i)

### Descriptive statistics (e.g.) for the Canadian fleet

- a) Yearly deployment bar chart
- b) Network growth (active floats/time)
- c,d,e) Age distribution bar/pie charts
- f) Decay rate for each generation of floats (yearly)
- g) float models distribution pie chart
- h) Drifting and profiling pressure bar charts
- i) Float decay for all (dead) Canadian floats

### Remark:

All of these statistics can be generated on the fly for any float group defined by the float search engine (see below).

Use the advanced search engine below to query the AIC float database, storing all official Argo floats .  
 For quick queries on float Ids (any) think to use the global search engine above right.  
 Click buttons below to display more criteria

Country:

Program:

WMO ID:

Telecom ID:  Telecom Type:

Serial ID:

Internal ID:

Platform Model:

Argo Equivalent:  Yes  No  Doesn't matter

**Float Search Engine**  
 (query interface with many new criteria)

Add/ Remove

Argo News, Newsletter

Internal ID

Serial No

WMO ID

Telecom ID

Depl. Date

Notif. Date

Depl. lat/lon

Depl. Basin

Latest Loc. Basin

Depl. type

Model

Program

Date

Lat/Lon

Data

DACs

# GDAC Profiles

Reliability

Drifting Pressure

Profiling Pressure

Sensors

Age (Days)

Label

191 Platforms Display 25 items Page 2 of 8

	Status	WMO ID	Telecom ID	Model	Program	Date	Data	Age
1		4900534	48901	Provor	Argo CANADA	22/09/2006		850
2		4900531	48898	Provor	Argo CANADA	24/09/2006		850
3		4900733	48877	APEX	Argo CANADA	23/09/2006		191
4		4900734	48878	APEX	Argo CANADA	24/09/2006		190
5		4900879	62965	APEX	Argo CANADA	28/09/2006		120
6		4900880	62966	APEX	Argo CANADA	27/09/2006		120
7		2900455	28372	APEX	Argo CANADA	28/09/2006		771
8		4900525	48892	Provor	Argo CANADA	28/09/2006		700
9		4900872	62958	APEX	Argo CANADA	27/09/2006		70
10		4900871	62957	APEX	Argo CANADA	26/09/2006		70
11		4900873	62959	APEX	Argo CANADA	23/09/2006		50
12		4900874	62960	APEX	Argo CANADA	24/09/2006		50
13		4900869	62955	APEX	Argo CANADA	23/09/2006		80
14		4900490	47696	APEX	Argo CANADA	22/09/2006		830
15		4900493	47699	APEX	Argo CANADA	29/09/2006		790
16		4900124	29429	APEX	Argo CANADA	29/09/2006		1330
17		4900245	8394	APEX	Argo CANADA	01/10/2006		1330
18		4900122	29427	APEX	Argo CANADA	30/09/2006		1330
19		4900519	48886	APEX	Argo CANADA	30/08/2006		760
20		4900628	57082	APEX	Argo CANADA	27/09/2006		60
21		4900503	48870	APEX	Argo CANADA	02/10/2006		60
22		4900400	35533	APEX	Argo CANADA	01/10/2006		1211
23		4900636	29410	APEX	Argo CANADA	22/09/2006		580
24		4900491	47697	APEX	Argo CANADA	29/09/2006		590
25		4900632	57078	APEX	Argo CANADA	27/09/2006		420

**New result page**  
 (Many new parameters to be displayed or hidden)

Click buttons below to display details.

Locate on interactive Map  (Mac / Safari users please empty your cache before clicking)

Equipments Configuration Deployment GTS GDACs Locations DACs

 **Argo INDIA** 2900764

 10 days (1 cycles)

 1 profiles on GTS (origin CLS)

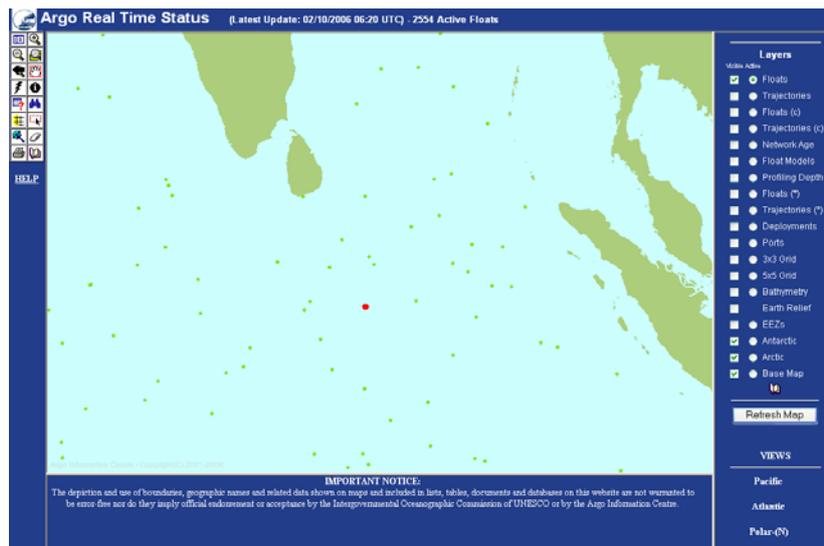
 1 profiles at GDACs (origin INCOIS)

Latest Location Date: 28/09/2006 (Indian Ocean)

▶ Legend ...

### Platform Inspect Page

All information recorded in the database for a platform is visible here, including:



### Direct zoom on interactive map to locate the platform

(Vice versa, any click on a platform on the map leads to the “Platform Inspect Page”)

Equipments

<b>Internal Id</b>	MRC
<b>Serial No</b>	2935
<b>Telecom type</b>	ARGOS
<b>Telecom Id</b>	23561
<b>Manuf. date</b>	
<b>Sensors</b>	Sub T WP Sub S
<b>Battery</b>	Alkaline 14.7V
<b>Argo Label</b>	<input type="checkbox"/>



**APEX**

Close

---

Configuration

<b>Float Cycle</b>	10
<b>Cycle Time</b>	240.00 hours
<b>Surface Time</b>	- No data -
<b>Drift Pressure</b>	2000
<b>Profile Pressure</b>	2000
<b>Park &amp; Profile</b>	1
<b>Ice detection software</b>	<input type="checkbox"/>

Close

Deployment

### Equipments and configuration

Deployment

<b>Depl. date</b>	18/09/06	<b>Notification date:</b> 19/09/2006
<b>Depl. Lat</b>	0.0000	
<b>Depl. Lon</b>	85.0000	
<b>Basin</b>	Indian Ocean	

---

<b>Depl. Country</b>	INDIA
<b>Depl. type</b>	R/V
<b>Depl. ship</b>	R/V
<b>Depl. Method</b>	MANUAL
<b>Depl. Height</b>	1.0
<b>Depl. Speed</b>	0.00
<b>Package type</b>	- No data -
<b>Call Sign</b>	

---

<b>Weather</b>	- No data -
<b>Sea state</b>	- No data -
<b>Wind speed</b>	- No data -

---

**CTD at launch**

Comments

Close

### Deployment Conditions

**Monthly statistics:**

Date	TTAAii	CCCC	GTS Centre	Rec.Type	Instr.Type	Lat.	Lon.	#T	#S	Depth (m)	Delay (hours)
2006-09	SOVX05	LFPW	Météo France	60	846	-0.3610	84.2730	1	1	1999	18.4
								$\Sigma$	$\Sigma$	mean	
								1	1	1999	

- Data Assembly Centre: CLS  
 - Monthly Reports by Meteo-France

**GTSPP QC Feedback:**

No GTSPP QC feedback for this platform

Close

GDACs

GET DATA : 1 profiles available (origin INCOIS)

IFREMER (FR)    Data Browser    FTP OPENDAP-DODS  
 FNMOG (US)    Data Browser HTTP FTP OPENDAP-DODS

VIEW METADATA

Close

Location

Date	Lat	Lon	Quality
28/09/2006	-0.36	84.27	3
18/09/2006	-0.07	85.36	2

Close

**Monthly GTS Statistics, Access to Data (and metadata files) at GDACs, list of locations**  
 (The TC in admin mode can edit any element and particularly flag the wrong locations on the fly or swap the two location solutions of the Doppler/Argos location system – which is a common cause of errors)

## Argo Metadata Explorer

Download latest version of metadata file (USA/FNMOC)

N_CYCLE	1
PLATFORM_NUMBER	5900778
ANOMALY	n / a
PLATFORM_MODEL	S O L O _ S B E

### Equipement

PTT	22765
TRANS_SYSTEM	A R G O S
SENSORS	PRES TEMP CNDC SBE
SENSOR_MAKER	SBE SBE
SENSOR_MODEL	n/a SBE41CP SBE41CP

### Configuration

CYCLE_TIME	9.6175
PARKING_PRESSURE	1000.0
PARKING_TIME	8.5668
DEEPEST_PRESSURE	1836.0
SURFACE_TIME	18.0
REPETITION_RATE	1
DIRECTION	A

### Deployment

DEPLOY_PLATFORM	r / v Tangaroa
LAUNCH_DATE	18/04/2005
LAUNCH_LAT	-49.75
LAUNCH_LON	-140.50
DEPLOY_MISSION	unknown
DEPLOY_AVAILABLE_PROFILE_ID	n / a
END_MISSION_DATE	
END_MISSION_STATUS	

DATE_CREATION	01/10/06
DATE_UPDATE	01/10/06
DATA_CENTRE	A O

Read on the fly from USA/FNMOC Global Data Centre

**Argo netCDF Metadata file explorer**



## One week of AIC website audience:

Application Statistics					
	Transactions	Average Transaction Time	Average Idle Time	Moving Average* Transaction Time	Moving Average* Idle Time
Overall	7906	0.874	77.217	0.716	62.180
Component Actions	7330	0.888	NA		NA
Direct Actions	576	0.688	NA		NA
Started at	11:58:05 on Thu, Oct 05 2006 Europe/Paris				
Running time	7 days, 3 hours, 29 minutes, 49 seconds				

\* The sample size for Moving Averages is 100 transactions.

Sessions Statistics	
Total Sessions Created	2519.00
Session Rate	0.23
Avg. Transactions Per Session	3.14
Sample Size For Moving Avg.	10.00
Current Active Sessions	378.00
Peak Active Sessions	378.00
Moving Avg. Session Life	83.46
Moving Avg. Transactions Per Session	2.49
Avg. Session Life	94.38
Peak Concurrent Sessions at 15:27:50 on Thu, Oct 12 2006 Europe/Paris	

Memory Usage (bytes)	
Total Memory	530,907,136
Free Memory	128,629,808

Avg. Memory Usage Per Session (bytes)	
Total Memory	702,171
Free Memory	-309,996

Component Action Statistics					
Name	Served	Min	Avg	Max	
N_Inspect	3	0.196	1.710	4.372	
Doc_List	45	0.000	0.235	0.856	
Data_Tools	5	0.001	0.301	0.483	
Photos_Query	42	0.000	0.433	1.149	
Argo_Participants	4	0.001	1.777	6.118	
N_List	85	0.000	1.466	18.669	
Map_Latest	49	0.000	9.280	122.590	
Map_GIS_Home	23	0.000	0.313	0.624	
Project_Status	56	0.000	2.049	29.811	
Program_Inspect	24	0.000	1.082	5.457	
Weblink_Edit	1	0.440	0.440	0.440	
Photos_List	121	0.000	2.346	62.227	
Help_Home	17	0.001	0.474	2.342	
Participants_Home	19	0.001	0.759	5.026	
Map_Home	81	0.000	0.479	2.780	

More than 200 dynamic components ...

Name	Served	Min	Avg	Max
Map_Query	8	0.175	<b>0.331</b>	0.532
Implementation_Retrieval_Home	1	0.582	<b>0.582</b>	0.582
Main	4531	0.000	<b>0.808</b>	15.033
Loc_Edit	5	0.368	<b>0.416</b>	0.507
Map_Misc	1	0.346	<b>0.346</b>	0.346
Web_MailingList	2	0.337	<b>0.400</b>	0.464
Data_ADMT_Home	3	0.170	<b>0.353</b>	0.451
FloatDecay_	6	0.000	<b>0.002</b>	0.008
Map_List	18	0.000	<b>1.727</b>	5.278
Meeting_List	2	0.000	<b>0.140</b>	0.281
Version_List	11	0.001	<b>0.413</b>	1.718
Contact_Search	1	0.649	<b>0.649</b>	0.649
Instrumentation_Links	2	0.388	<b>0.401</b>	0.414
Implementation_EEZs	2	5.399	<b>5.512</b>	5.626
Status_Files	9	0.000	<b>0.151</b>	0.520
Platform_Inspect	296	0.000	<b>0.398</b>	2.691
Weblink_Home	15	0.000	<b>0.584</b>	1.767
Doc_Edit	13	0.255	<b>0.297</b>	0.442
Weblink_List	5	0.156	<b>0.247</b>	0.469
Monitoring_Home	34	0.000	<b>0.339</b>	0.614
N_Query	32	0.000	<b>0.483</b>	0.784
Instrumentation_Doc	4	0.000	<b>0.280</b>	0.571
N_Edit	54	0.000	<b>1.942</b>	5.477
Platform_Query	289	0.000	<b>0.421</b>	1.662
Data_Home	40	0.000	<b>0.333</b>	0.892
Implementation_Deployment_Status	5	7.311	<b>7.489</b>	7.683

... plus direct “Web services” used by mapping systems or AIC toolbar

Direct Action Statistics				
Name	Served	Min	Avg	Max
notification	18	0.214	<b>0.406</b>	0.548
default	31	0.001	<b>1.540</b>	2.143
ptf	238	0.012	<b>0.936</b>	9.185
WOSTata	1	0.108	<b>0.108</b>	0.108
country	4	0.905	<b>1.631</b>	3.369
maps	8	4.969	<b>7.003</b>	15.420
search	21	0.913	<b>1.182</b>	2.179
ptfSearch	1	0.321	<b>0.321</b>	0.321
status	1	0.449	<b>0.449</b>	0.449
map	8	1.970	<b>2.113</b>	2.206
floatDecay	245	0.001	<b>0.050</b>	1.022

These tools permit to track the use of the AIC dynamic website in order to improve the most used components and detect the problematic ones (regarding loading time). On this example, during one week, 2500 sessions have been created, the home page has been loaded 4500 times, 300 queries have been made on the float search engine, etc.

## - Key AIC URLs

All of the following URLs are accessible from <http://argo.jcommops.org>

### Export Files

- **Status files (ASCII, csv)**
  - Active floats, latest location  
<http://w3.jcommops.org/FTPRoot/Argo/Status/status.txt>  
<http://w3.jcommops.org/FTPRoot/Argo/Status/status.txt.gz>
  - All Argo official deployments  
<http://w3.jcommops.org/FTPRoot/Argo/Status/deployments.txt>  
<http://w3.jcommops.org/FTPRoot/Argo/Status/deployments.txt.gz>
  - All floats locations  
<http://w3.jcommops.org/FTPRoot/Argo/Status/loc.txt>  
<http://w3.jcommops.org/FTPRoot/Argo/Status/loc.txt.gz>
- **Google Earth Files:**
  - <http://w3.jcommops.org/FTPRoot/Argo/Status/status.kml> (Active floats - latest locations)
  - [http://w3.jcommops.org/FTPRoot/Argo/Status/status\\_full.kml](http://w3.jcommops.org/FTPRoot/Argo/Status/status_full.kml) (Active floats - latest locations and trajectories)
  - [http://w3.jcommops.org/FTPRoot/Argo/Status/status\\_inactive.kml](http://w3.jcommops.org/FTPRoot/Argo/Status/status_inactive.kml) (Inactive floats - latest location and trajectories)

### Dynamic Pages

- Interactive Map: <http://w4.jcommops.org/website/Argo>
- Latest status map by country:  
<http://w3.jcommops.org/FTPRoot/Argo/Maps/status.png>  
<http://w3.jcommops.org/FTPRoot/Argo/Maps/status.pdf> (High res.)
- Latest Argo maps:  
<http://wo.jcommops.org/cgi-bin/WebObjects/Argo.woa/wa/maps>
- 'ArgoV' ESRI Map Service available on <http://w4.jcommops.org>
- Float Detail Page (replace X by the 7 digits WMO Id):  
<http://wo.jcommops.org/cgi-bin/WebObjects/Argo.woa/wa/ptf?wmo=X>
- Participating countries/programs statistics (replace X by country/program name):  
<http://wo.jcommops.org/cgi-bin/WebObjects/Argo.woa/wa/country?country=X>  
<http://wo.jcommops.org/cgi-bin/WebObjects/Argo.woa/wa/program?prog=X>
- Float Model Statistics (replace X by APEX, SOLO, Provor, etc)

<http://wo.jcommops.org/cgi-bin/WebObjects/Argo.woa/wa/model?model=X>

- Deployment notification  
<http://wo.jcommops.org/cgi-bin/WebObjects/Argo.woa/wa/notification>
- Project Status  
<http://wo.jcommops.org/cgi-bin/WebObjects/Argo.woa/wa/status>
- Contact List (replace X by AST, ADMT, NFPs, ... )  
<http://wo.jcommops.org/cgi-bin/WebObjects/Argo.woa/wa/gp?group=X>
- Data Distribution Status  
<http://wo.jcommops.org/cgi-bin/WebObjects/Argo.woa/wa/dataStats>

### **Mailing Lists**

[\*\*argo@jcommops.org\*\*](mailto:argo@jcommops.org)

Argo General Mailing List (~700 subscribers)

[\*\*argo-dm@jcommops.org\*\*](mailto:argo-dm@jcommops.org)

Argo Data Management (137)

[\*\*argo-dm-dm@jcommops.org\*\*](mailto:argo-dm-dm@jcommops.org)

Argo Data Management - Delayed Mode (43)

[\*\*argo-dm-format@jcommops.org\*\*](mailto:argo-dm-format@jcommops.org)

Argo Data Management - Data Formats (37)

[\*\*argo-dm-rt@jcommops.org\*\*](mailto:argo-dm-rt@jcommops.org)

Argo Data Management - Real Time (37)

[\*\*argo-exec@jcommops.org\*\*](mailto:argo-exec@jcommops.org)

Argo Executive (13)

[\*\*argo-st@jcommops.org\*\*](mailto:argo-st@jcommops.org)

Argo Steering Team (44)

[\*\*argo-tech@jcommops.org\*\*](mailto:argo-tech@jcommops.org) (71)

Argo Technical mailing list (with manufacturers)

Additionally, JCOMMOPS maintains DBCP and SOOP mailing lists and new lists for GEO:  
[ocean-united@jcommops.org](mailto:ocean-united@jcommops.org), for JCOMM news [jcomm-news@jcommops.org](mailto:jcomm-news@jcommops.org).